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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 0000054384	FOR FURTHER ACTION	See item 4 below			
International application No. PCT/EP2004/003845	International filing date (day/month/year) 13 April 2004 (13.04.2004)	Priority date (day/month/year) 16 April 2003 (16.04.2003)]			
International Patent Classification (IPC) or national classification and IPC C12N 15/09, C12P 7/64					
Applicant BASF PLANT SCIENCE GMBH					

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis. 1(a).						
2.	This REPORT consists of a total of 5 sheets, including this cover sheet.						
	In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.						
3.	3. This report contains indications relating to the following items:						
	\boxtimes	Box No. I Basis of the report					
	\boxtimes	Box No. II	Priority	Priority			
		Box No. III	Non-establishment of opi applicability	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability			
		Box No. IV	Lack of unity of invention	Lack of unity of invention			
	\boxtimes	Box No. V		Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
		Box No. VI	Certain documents cited	Certain documents cited			
		Box No. VII	Certain defects in the international application				
		Box No. VIII	Certain observations on the	Certain observations on the international application			
4.	4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis 3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).						
				Date of issuance of this report 21 October 2005 (21.10.2005)			
		e International B 34, chemin des C 1211 Geneva 20,	Colombettes	Authorized officer Agnes Wittmann-Regis			
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Form PCT/IB/373 (January 2004)							

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY					REC'D 28 JUL	2004	
То:			AMPE T PCT				
	see form PCT/ISA/220			WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY			
				Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet)			
	plicant's or agent's file e form PCT/ISA/2			FOR FURTHER ACTION See paragraph 2 below			
	International application No. International filing date (c PCT/EP2004/003845 13.04.2004			day/month/year)	Priority date (day/month/)	ear)	
	emational Patent Clas 2N15/09, C12P7		hoth national classification	and IPC			
	olicant SF PLANT SCIE	NCE GMBH					
1,	1. This opinion contains indications relating to the following items: 図 Box No. I Basis of the opinion						
	☑ Box No. II □ Box No. III	Priority Non-establishe	nent of oninion with some	vel to novolhe lavantice	step and industrial app	liantiikk	
	☐ Box No. IV	Lack of unity of		nd to novelty, inventive	steb and industrial abb	ilcability	
	Box No. V Reasoned statement under Rule 43bis.1(a)(l) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					industrial	
	Box No. VI	Certain docum		-			
1.	Box No. VII		In the international app				
	☐ Box No. VIII	Certain observa	ations on the Internation	al application			
2.	FURTHER ACTI						
	If a demand for International preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.						
	If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.						
	For further options, see Form PCT/ISA/220.						
3.	3. For further details, see notes to Form PCT/ISA/220.						
Name	e and malling addres	s of the ISA:		Authorized Officer			
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Tel. +49 89 2399 - 0 Tx: 523656 epmp d Fax: +49 89 2399 - 4485				Telephone No. +49 89 2	399-8707	S Annua sept. Mar	

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/EP2004/003845

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_	B()X N	o. I Basis of the opinion			
1.	 With regard to the language, this opinion has been established on the basis of the International application in the language in which it was field, unless otherwise indicated under this item. 					
			nis opinion has been established on the basis of a translation from the original language into the following nguage , which is the language of a translation furnished for the purposes of international search ander Rules 12.3 and 23.1(b)).			
2.	With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:					
	a. t	ype	of material:			
		Ø	a sequence listing			
	1		table(s) related to the sequence listing			
	b. format of material:					
	ı	Ø	in written format			
	0	X	in computer readable form			
	c. time of filling/furnishing:					
	[-	contained in the international application as filed.			
		3	filed together with the international application in computer readable form.			
	0		rurnished subsequently to this Authority for the purposes of search.			
3. i		cop	ddition, in the case that more than one version or copy of a sequence listing and/or table relating thereto been filed or furnished, the required statements that the information in the subsequent or additional ies is identical to that in the application as filed or does not go beyond the application as filed, as ropriate, were furnished.			
4. 1	Additional comments: .					

2. Citations and explanations see separate sheet

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/EP2004/003845

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_	Bo	x No. II	Priority				
1. The following document has not been furnished:						·	
			copy of the earlier	application	n whose p	oriority has	been claimed (Rule 43bis.1 and 66.7(a)).
			translation of the	earlier app	lication wh	ose priorit	y has been claimed (Rule 43bis.1 and 66.7(b)).
Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.							lidity of the priority claim. This opinion has e relevant date is the claimed priority date.
2.	This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.						
3.	Add	litional d	bservations, if nec	essary:			
	see separate sheet						
_	Bei	c No. V	. Peers and state			N	
			pplicability; citati	ons and o	er Kule 4; Explanatio	ons suppoi	with regard to novelty, inventive step or rting such statement
1.	Stat	ement					
	Nov	etty (N)		Yes:	Claims	1-4	
		,		No:	Claims	5-10	
	Inve	ventive step (IS)		Yes:	Claims		
					Claims	1-10	
	Indu	ndustrial applicability (IA)			Claims	1-10	•
			•	No:	Claims		•
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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SEPARATE SHEET)

International application No.

PCT/EP2004/003845

- The present application is concerned with a method of increasing the total oil content in a plant organism, comprising the transgenic expression of an acyltransferase, and genetic constructs useful therefore.
 The priority of European Application 03008909, filed 16.04.2003, is validly claimed
- 2. Reference is made to the following documents:
 - D1 WO00/18889
 - D2 Jain et al., Biochemical Society Transactions, vol. 28, part 6, 2000, p. 958-961
 - D3 Jako et al., Plant Physiology, vol. 126, June 2001, p. 861-874
 - D4 Taylor et al., Molecular Breeding, vol. 8, 2001, p. 317-322

The proteins used in the present invention are known in the art. However, only the protein having SEQ ID NO: 2 was identified as acyltransferase (D1).

- 3. D1 discloses vectors for expressing the acyltransferase in plant cells and plant cells comprising the acyltransferase (p. 11, I. 20- p. 12, I. 3). D1 thus anticipates the subject-matter of claims 5-10 (Article 33(3) PCT).
- 4. It was known that plants transformed with acyltransferase have an increased oil content (D2-D4). The skilled person thus would not be surprised that the expression of the acyltransferase of D1 also results in an increased oil content. The subject-matter of claims 1-4 therefore is not considered to be based on an inventive activity (Article 33(2) PCT).

PTO/SE/97 (09-04)
Approved for use through 07/31/2009. OMB 0651-0031
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Application No. (if known): 10/553,303 Attorney Docket No.: 12810-00153-US

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